Prevention bulletin
Publication of the Division of Public Health Services November/December 2003, Vol. 17, No. 6

Child Abuse Prevention in Medical Settings

By Lisa Shumaker

This year, Arizona newspapers printed a number of stories about children who died as a result of abuse or neglect perpetrated by their parent, guardian, or caregiver. Because child abuse and neglect cause serious damage to emotional and psychological development, abused children are at high risk to abuse substances, experience unplanned pregnancies, engage in violent behavior, commit suicide, develop depression and anxiety disorders, and perpetrate abuse and neglect upon their own children when they grow up. Medical professionals can contribute significantly to the prevention of child abuse by identifying parents at high risk to neglect or abuse their child and helping those parents take advantage of sources of support and education.

The ability to care for, nurture, and stimulate the healthy development of a child is directly related to a parent's maturity and emotional stability. Three major risk factors for perpetration of child abuse and neglect are: substance abuse, mental illness, and having a child with a disability.

Children of substance abusers are three to four times more likely to be victims of neglect or abuse. The majority of child removals from their home involve parental use of alcohol or other drugs.

Parents suffering from behavioral health problems are at risk to neglect or abuse their child because they are more likely to engage in maladaptive parenting behaviors and have inappropriate expectations regarding their child. Parents who were themselves abused or neglected have often formed poor attachments with their own parents and tend to have more difficulty raising children.

Children with disabilities are nearly twice as likely to be victims of abuse or neglect. They require higher levels of care, which can be overwhelming for parents with insufficient resources and support. Parents of disabled children may see their child as different or embarrassing and mourn what they perceive as a loss. Parent infant bonding is crucial to the prevention of abuse and neglect. Disability related separations are damaging to parent-infant bonding. Children who are unaffectionate or unresponsive to affection as a result of

continued on page 2

As Defined by Arizona Law

Abuse: the infliction or allowing of physical injury, impairment of bodily function or disfigurement or the infliction of or allowing another person to cause serious emotional damage as evidenced by severe anxiety, depression, withdrawal or untoward aggressive behavior and which emotional damage is diagnosed by a medical doctor or psychologist…and is caused by the acts or omissions of an individual having care, custody and control of a child. Abuse shall include inflicting or allowing sexual abuse, sexual conduct with a minor, sexual assault, molestation of a child, commercial sexual exploitation of a minor, sexual exploitation of a minor, incest, child prostitution.

Neglect: the inability or unwillingness of a parent, guardian or custodian of a child to provide that child with supervision, food, clothing, shelter or medical care if that inability or unwillingness causes substantial risk of harm to the child's health or welfare, except if the inability of a parent or guardian to provide services to meet the needs of a child with a disability or chronic illness is solely the result of the unavailability of reasonable services.

*Neglect occurs much more frequently than abuse.

Arizona Department of Health Services

Visit the ADHS Web site at www.hs.state.az.us

Child Abuse continued from page 1

their disability also have difficulty bonding with their parents.

Adolescent parents should receive special attention from medical professionals because they are more likely to be both victims and perpetrators of child abuse or neglect. Sixty percent of adolescent mothers have been sexually abused. More than a quarter of them continue to experience sexual abuse throughout their pregnancy.

Arizona has one of the highest rates of adolescent pregnancy in the United States. Because of their age and developmental stage, adolescent parents are less likely to have maturity, education, knowledge, patience, good support, quality prenatal care, and financial stability. Bonding between adolescent parents and their child is also disrupted because adolescent mothers are less likely to smile, make eye contact, and verbally communicate with their baby. They are more likely to have unrealistic expectations about their child and more likely to experience stress, impatience, anger, and frustration, and use harsh discipline.

Child abuse is preventable. Effective prevention strategies include peer support groups, home visitation, mentoring, education about child development & discipline, and structured opportunities for parent-child bonding. Arizona is home to numerous, free, high quality parenting support and education programs throughout the state. Parents eligible for Medicaid can receive additional support including case management, substance abuse treatment, counseling, and other behavioral health services for no cost via Regional Behavioral Health Authority (RBHA) funded programs.

Medical professionals assist in the prevention of child abuse by screening patients for domestic violence, substance abuse, depression, child abuse, and behavioral health problems and assist high risk parents with locating sources of support and education. They can provide education themselves about community resources, caring for infants, non violent discipline, coping with stress, bonding with their child, child development, and realistic expectations or refer pregnant and post partum parents to agencies who provide education. Education should be tailored to the developmental stage and consider the culture of the parent, while helping parents identify and celebrate their strengths and successes.

Medical professionals can contribute significantly to the prevention of child abuse by identifying parents at high risk to neglect or abuse their child and helping those parents take advantage of sources of support and education.

Additionally, medical businesses can partner with local parenting organizations to provide parent support groups, home visitation, and education. To find the parenting program closest to you contact the Division of Behavioral Health Services, Office of Prevention at 602-364-4630. Together we can help families raise happy, healthy, children.

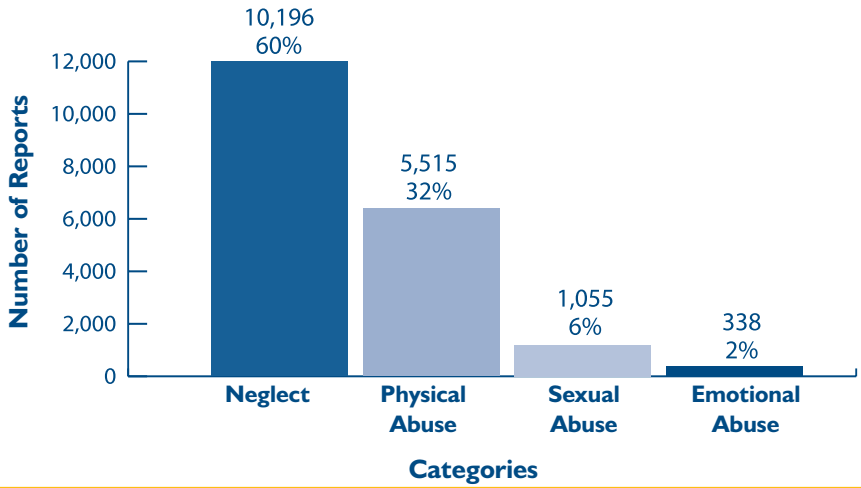
Symptoms of Abuse or Neglect

Bed wetting
Aggression
Sexual acting out
Nightmares
Problems in school
Anxiety
Low self esteem
Depression
Poor hygiene
Withdrawal
Poor school performance
Bruises, welts, burns
STD's
Pregnancy
Malnourishment

Medical professionals who believe a child has been a victim of abuse or neglect are required by state law to report this information to the police or Child Protective Services (Arizona Revised Statutes, 13-3620). 1-888-SOS-CHILD

Lisa Shumaker is a Community Program Representative in the ADHS Division of Behavioral Health Services. She can be reached at 602.364.4600 or lshumak@hs.state.az.us.

Number of Reports Received by Major Category for Period of April 1, 2002 through September 30, 2002



Child Fatality Review Report Released

The year 2002 was the eighth full year in which Arizona's Child Fatality Review Program has reviewed the deaths of Arizona children. The mission of the program is to reduce child fatalities by identifying preventable child deaths through case reviews. A child's death is considered to be preventable if an individual or the community could reasonably have done something that would have changed the circumstances that led to the child's death.

Using this data, the Program develops recommendations for legislation, public policy and community education to help prevent deaths in the future. There were 979 child deaths reported in Arizona during 2002 and 935 of these deaths (95.5%) have been reviewed for this report.

Findings

- Almost 30 percent (277 of the 935 deaths) were preventable.
- Over 52 percent of the deaths of children ages 1 through 17 years were preventable.
- There were 36 deaths that were due to child maltreatment and 33 (92%) were preventable.
- In 18 of the 36 (50%) child maltreatment deaths there was family history of substance abuse and in 11 of the 36 (30.5%) there was a history of domestic violence.
- There were 46 homicide deaths in 2002; 40 (87%) were preventable.
- During 2002, 38 Arizona children died due to gunshot wounds and 28 (74%) of these deaths could have been prevented.
- There were 24 suicide deaths and 19 (79%) of these deaths were determined to be preventable.
- Approximately 60 percent of all preventable deaths were due to accidents (unintentional injuries).
- Of the 277 preventable deaths 102 (37%) were associated with lack of supervision of the child or adolescent.
- Over 85 percent of the deaths due to motor vehicle crashes were preventable.
- Unintentional drowning deaths decreased from 40 in 2001 to 31 in 2002.

Recommendations to Prevent Child Deaths

For Elected Officials:

- Expand Healthy Families Arizona and other child maltreatment prevention programs.
- Increase funding for Child Protective Services so that every report can be investigated, caseloads for workers can be reduced and there are sufficient workers available to oversee the care of Arizona's dependent children.
- Fund adequate, appropriate and timely behavioral health services including substance abuse treatment for children, adolescents, and their families.
- Support efforts to increase the primary enforcement of appropriate automobile restraints for all children and adolescents.
- Support statewide legislation and enforcement of pool fencing ordinances.
- Increase enforcement of laws prohibiting persons under age 18 from possessing a firearm.

For the Arizona Public:

- Report all suspected child abuse and neglect to Child Protective Services.
- Keep guns away from children and adolescents.
- Learn how to recognize children at risk for suicide and seek intervention for these children.
- Do not let people drive when under the influence of drugs or alcohol.
- Always buckle up and use child safety seats.
- Recognize the importance of age-appropriate supervision of children and adolescents.
- Install and maintain secure backyard pool fencing.

To view a copy of the 2002 Child Fatality review report, go to *www.hs.state.az.us/cfhs/azcf/pr01_toc.htm.*

For more information on the Child Fatality Review Program, call 602.542.1875.

False Rumors About Recalled Influenza Vaccine

Rumors have been circulating that a "contaminated" lot of flu vaccine has been recalled by the Food and Drug Administration. This is false. No contamination of any flu vaccine has been identified anywhere in the U.S., and the FDA has not recalled any lot of flu vaccine. Flu vaccine is routinely tested for safety, purity, and potency and all lots released have met these standards.

As with any vaccine, flu vaccine is capable of causing some side effects; these are very rarely severe. Most side effects from flu vaccine are mild, such as arm soreness, redness or swelling where the shot was given, fever, or achiness. More serious reactions to the flu vaccine do occur, but they are rare. While FDA and CDC are currently investigating several recent reports of possible significant allergic reactions to flu vaccine, it is important to note that the number and type of reactions reported to date are not unexpected.

First Flu Case Confirmed in Pima County

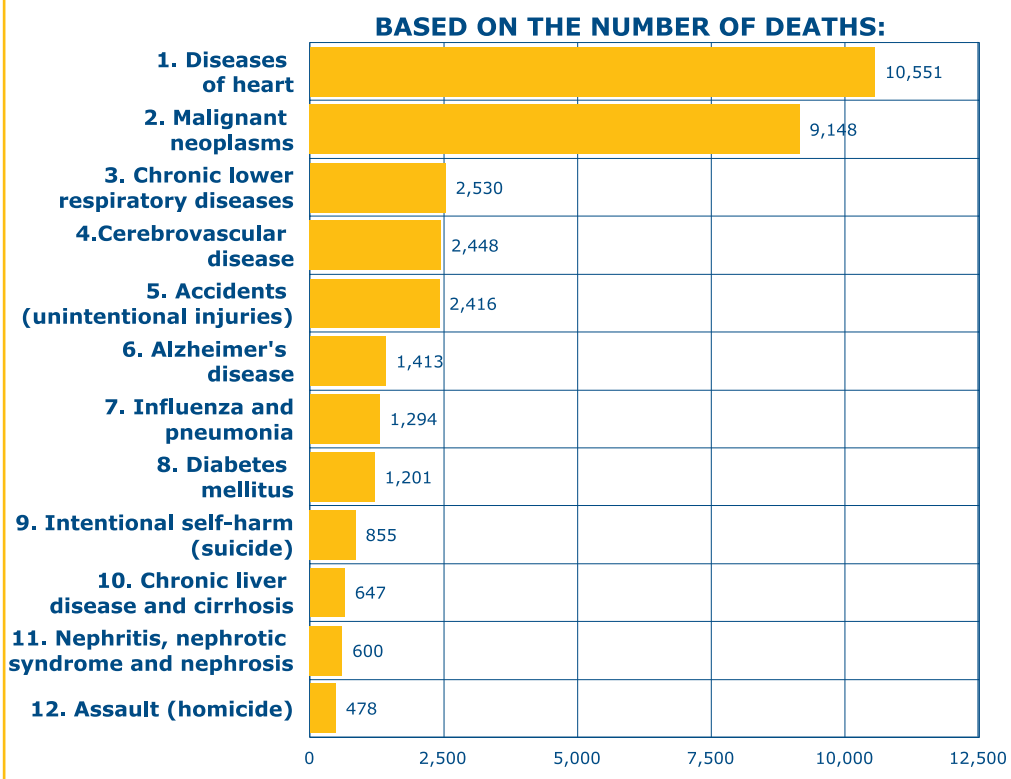
In October, the State Health Laboratory confirmed the state's first case of influenza in a Pima County resident. Arizona is among the first of only a handful of states to report influenza activity early in the season, including neighboring states Texas and Colorado.

While influenza activity in the United States usually starts in November or December and reaches peak levels from late December through April, the timing of influenza activity is highly variable from year to year and influenza outbreaks have been reported in October in some previous years. Influenza cases and isolated outbreaks can occur at any time of the year.

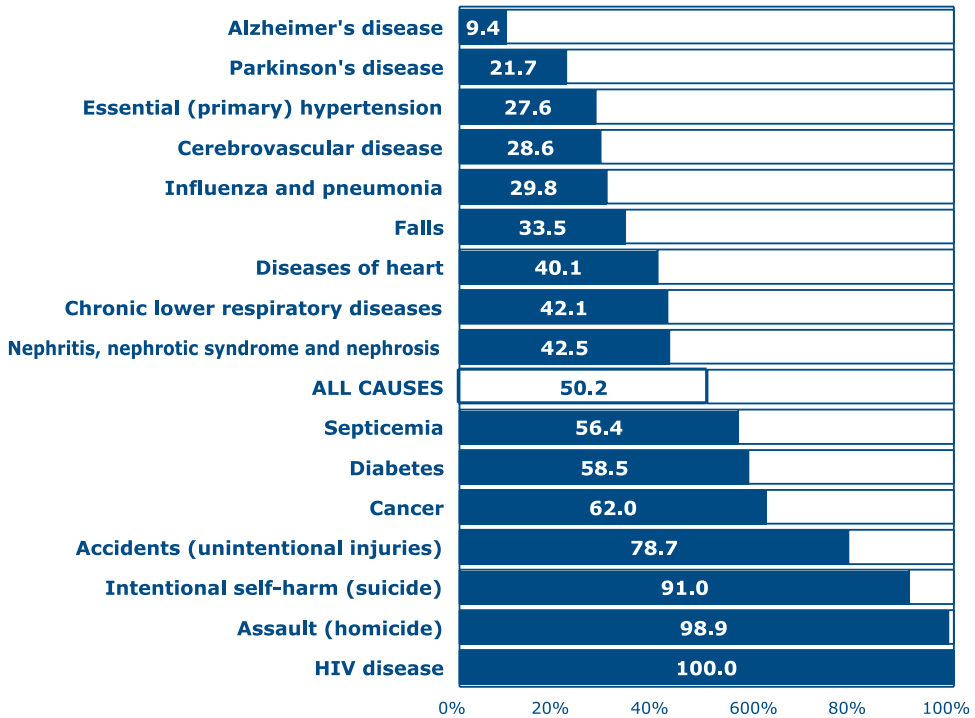
ADHS relies on a surveillance network of reporting sites around the state to track influenza levels and identify circulating strains of the virus. The State Health Laboratory types selected influenza isolates when warranted.

Review Of Causes Of Death Among Arizona Residents in 2002

Twelve Leading Causes of Death Among Arizona Residents in 2002



Percent of Deaths Before Expected Years of Life Reached* for Selected Leading Causes of Death Arizona, 2002



* Expected years of life at birth for all U.S. residents (77.2 years in 2001).

Based on Number of Deaths

In 2002, there were 42,320 Arizona residents who died from all causes combined. The leading cause of death in 2002 continued to be heart disease, accounting for 10,551 or 24.9 percent of all deaths. Cancer remained the second most frequent cause of death to residents of the state, comprising 21.6 percent of all deaths. Deaths due to chronic lower respiratory diseases (a title change from ICD-9 title chronic obstructive pulmonary disease) ranked third, with 2,530 resident deaths reported (6 percent of all deaths). Deaths due to cerebrovascular disease (including stroke) moved up from fifth place in 2001 to fourth in 2002, with 2,448 deaths reported. Dropping to the fifth leading cause was accidents (unintentional injuries), accounted for 2,416 or 5.7 percent of total deaths. Together, these five causes accounted for 64.0 percent of total deaths in 2002.

Based on Percent of Deaths Occurring Prematurely

Selected causes of death are ranked according to the proportion of deaths occurring before the decedent reaches 77.2 years of age (the life expectancy at birth in the US in 2001). This approach highlights diseases and injuries that cause persons to die at young ages. The leading cause of premature death is HIV infection, followed by homicide, suicide, accidents, cancer, and diabetes.

Additional information about Arizona's death statistics in 2002 can be found on the vital statistics website: *www.hs.state.az.us/plan/ohpes.htm.*

Arizona Department of Health Services
Public Health Directory
ADHS Web Site: www.hs.state.az.us

Office of the Assistant Director
Ph. 602.542.1023
Fax 602.364.3445

Native American Liasion
Ph. 602.364.1041
Fax 602.364.3445

Public Information Office
Ph. 602.364.1201
Fax 602.364.3268

State Epidemiologist
Ph. 602.364.3582
Fax 602.364.3445

Healthy Arizona 2010 Healthy Aging 2010
Ph. 602.364.0526
Fax 602.542.1265

Infectious Disease Epidemiology/ Communicable Disease Reporting
Ph. 602.364.3676
Fax 602.364.3199

Rabies and Other Vector-Borne/ Zoonotic Diseases
Ph. 602.364.3676
Fax 602.364.3198

Tuberculosis Control
Ph. 602.364.4750
Fax 602.364.3267

Medical Director, Bureau of Epidemiology and Disease Control
Ph. 602.364.3856
Fax 602.364.3267

Hepatitis C
Ph. 602.364.3658
Fax 602.364.3267

HIV/AIDS
Ph. 602.364.3610
Fax 602.364.3268

Sexually Transmitted Diseases
Ph. 602.364.4666
Fax 602.364.3267

Environmental Health/Lead Poisoning
Ph. 602.364.3118
Fax 602.364.3146

Food Safety
Ph. 602.364.3122
Fax 602.364.3146

Arizona Immunization Program
Ph. 602.364.3630
Fax 602.364.3285

Vaccines For Children (VFC)
Ph. 602.364.3642
Fax 602.364.3276

ASIIS Registry Helpline
Maricopa County
602.364.3899
Other Areas Toll-Free
877.491.5741
Fax 602.364.3285

Office of Border Health
Ph. 520.770.3110
Fax 520.770.3307

Epidemic Detection and Response (Bioterrorism)
Ph. 602.364.3289
Fax 602.364.3264

State Health Laboratory
Ph. 602.542.1188
Fax 602.542.1169

Tobacco Education and Prevention Program
Ph. 602.364.0824
Fax 602.364.0844

Arizona Smokers' Helpline
www.ashline.org
Ph. 1.800.55.66.222

Vital Records
Ph. 602.364.1300
Fax 602.364.1257

General Public Health Statistics
Ph. 602.542.2955
Fax 602.542.2940

Health Registries (Cancer, Birth Defects and CNS injury)
Ph. 602.542.7308
Fax 602.364.0296

Emergency Medical Services
Ph. 602.364.3150
Fax 602.861.9812

Child Fatality Review Program
Ph. 602.542.1875
Fax 602.542.1843

Children With Special Health Care Needs
Ph. 602.542.1860
Fax 602.542.2589

Women and Children's Health
Ph. 602.364.1400
Fax 602.364.1494

Nutrition & Chronic Disease Prevention Services
Ph. 602.542.1886
Fax 602.542.1890

Oral Health
Ph. 602.542.1866
Fax 602.542.2936

Behavioral Health Services
Ph. 602.364.4558
Fax 602.364.4570

Arizona State Hospital
Ph. 602.244.1331
Fax 602.220.6355

Poison Control
Phoenix 602.253.3334
Tucson 520.626.6016

COUNTY HEALTH DEPARTMENTS - (Main Numbers)

Apache
Ph. 928.337.4364
Fax 928.337.2062

Cochise
Ph. 520.432.9472
Fax 520.432.9480

Coconino
Ph. 928.522.7800
Fax 928.522.7808

Gila
Ph. 928.425.3189
Fax 928.425.0794

Graham
Ph. 928.428.0110
Fax 928.428.8074

Greenlee
Ph. 928.865.2601
Fax 928.865.1929

La Paz
Ph. 928.669.1100
Fax 928.669.6703

Maricopa
Ph. 602.506.6900
Fax 602.506.0272

Mohave
Ph. 928.753.0743
Fax 928.718.5547

Navajo
Ph. 928.524.4750
Fax 928.524.4754

Pima
Ph. 520.740.8261
Fax 520.623.1432

Pinal
Ph. 520.866.7241
Fax 520.866.7358

Santa Cruz
Ph. 520.375.7900
Fax 520.761.4813

Yavapai
Ph. 928.771.3122
Fax 928.771.3369

Yuma
Ph. 928.317.4550
Fax 928.317.4591

SUMMARY OF SELECTED REPORTABLE DISEASES

Year to Date (January - September, 2003)[1, 2]

	Jan - Sept 2003	Jan - Sept 2002	5 Year Median Jan - Sept
VACCINE PREVENTABLE DISEASES:			
Haemophilus influenzae, serotype b invasive disease (<5 years of age)	6 (3)	4 (2)	4 (3)
Measles	1	0	0
Mumps	0	1	2
Pertussis (<12 years of age)	79 (50)	47 (32)	59 (36)
Rubella (Congenital Rubella Syndrome)	0 (0)	0 (0)	1 (0)
FOODBORNE DISEASES:			
Campylobacteriosis	650	549	452
E.coli O157:H7	25	34	34
Listeriosis	9	14	11
Salmonellosis	522	493	569
Shigellosis	398	322	356
VIRAL HEPATITIDES:			
Hepatitis A	216	253	355
Hepatitis B	241	185	148
Hepatitis B: non-acute[3]	771	861	804
Hepatitis C	7	5	10
Hepatitis C: non-acute[3]	6,826 (2,551)	7,809 (3,948)	4,707 (1,667)
INVASIVE DISEASES:			
Streptococcus pneumoniae	457	610	610
Streptococcus Group A	143	236	154
Streptococcus Group B in infants <30 days of age	19	16	25
Meningococcal Infection	14	25	25
SEXUALLY TRANSMITTED DISEASES:			
Chlamydia	10,246	11,151	9,738
Gonorrhea	2,824	2,738	3,035
P/S Syphilis (Congenital Syphilis)	148 (18)	148 (11)	148 (21)
DRUG-RESISTANT BACTERIA:			
TB isolates resistant to at least INH (resistant to at least INH & Rifampin)	4 (1)	9 (0)	8 (1)
Vancomycin resistant *Enterococci* isolates	650	779	720
VECTOR-BORNE & ZOONOTIC DISEASES:			
Hantavirus Pulmonary Syndrome	0	1	2
Plague	0	0	0
Animals with Rabies[4]	57	117	77
ALSO OF INTEREST IN ARIZONA:			
Coccidioidomycosis	1,954	2,210	1,343
Tuberculosis	158	156	157
HIV	390	363	363
AIDS	347	297	367
Lead Poisoning (<16 years of age)	226 (202)	223 (200)	223 (184)

1 *Data are provisional and reflect case reports during this period except Lead Poisoning which is by date of diagnosis.*
2 *These counts reflect the year reported or tested and not the date infected.*
3 *Case counts for non-acute Hepatitis B and C are not available before 1998.*
4 *Based on animals submitted for rabies testing.*

Tularemia and Rocky Mountain Spotted Fever

By Craig Levy

Tularemia

The first case of tularemia reported in 2003 occurred in late summer when an adult male from Coconino County presented to a physician with fever, diarrhea, right axillary lymphadenopathy, and soreness in the right forearm. He reported being bitten by an insect (presumably a deerfly) on the right forearm a couple of days prior to onset of symptoms. The lymph node aspirate tested positive for *Francisella tularensis*.

Although deerfly activity has waned in northern Arizona, there is still some risk of acquiring this zoonotic disease through hunting or skinning rabbits, etc. Historically, most cases of tularemia in the summer are associated with arthropod bites, and those in the winter tend to be associated with exposure to infected rabbit carcasses. There was one case reported in Arizona in 2000 and one in 2001, but none in 2002. More information is available at *www.bt.cdc.gov/agent/tularemia/index.asp.*

Rocky Mountain Spotted Fever (RMSF)

Rickettsia rickettsii infection was confirmed as the cause of illness and death of a young child in Navajo County. The child had onset of illness in mid-August. Symptoms included fever and maculopapular rash. History of a tick exposure could not be confirmed. Laboratory findings included leukopenia, thrombocytopenia and elevated liver enzymes. This is the first case of RMSF reported in Arizona in 2003. There was one case reported in 2002 (in the same area) and none in 2000 and 2001. Ninety percent of the cases nationwide tend to occur from April through September.

Diagnosis and treatment of RMSF pose specific challenges due to its low frequency, non-specific symptoms in the early stages, and rapid progression of disease. Delayed diagnosis and initiation of specific antirickettsial therapy (>= 5 days) is associated with a greater risk for a fatal outcome. This underscores the need for clinicians to consider RMSF in children with rash and fever, particularly those with an history of tick bite; however, lack of a known tick exposure should not rule out RMSF since less than 20% of RMSF patients present with rash, fever, and a history of tick exposure on their first visit. For more information, please visit *www.cdc.gov/ncidod/dvrd/rmsf.*

If you need assistance in determining if a tick that is attached to a patient is a potential vector for RMSF, please submit the tick(s) in 70% isopropyl alcohol to the:

Arizona Dept of Health Services
Vector-Borne Diseases Program
150 North 18th Avenue, Ste. 140
Phoenix, Arizona 85007
602.364.4562

Craig Levy is the Program Manager for the Vector-Borne Diseases Program and can be reached at 602.364.3581 or clevy@hs.state.az.us.

Saving Lives for Cheap: Intervention of Hepatitis C

By Dr. Bob England, State Epidemiologist

The Arizona Department of Health Services (ADHS) has overhauled its hepatitis C virus (HCV) activities to make a real difference in preventing illness. If we do this right, we think we'll have one of the most cost-effective secondary prevention activities in all of public health.

An estimated 1.8% of the general population has been infected with HCV (approximately 100,000 Arizonans). Of these, approximately 80% have chronic infection (80,000 Arizonans). Up to 20% of these will progress to cirrhosis and life threatening liver disease. Importantly, we know who many of these persons are. Last year, we received 10,280 reports of HCV infection.

On average, serious liver disease appears some 20 years following initial HCV infection. Since the epidemic peaked less than 20 years ago (in the late 1980s), we have yet to see the peak of those presenting for medical care. Despite this, HCV is already the leading cause of liver transplantation and reported HCV infection surged by more than 50% last year in Arizona. Although much research is underway, medical treatment remains effective in only about half of individuals and the cost for a year's treatment can easily exceed $10,000 per patient. Given the large numbers of candidates for treatment and the current cost of care, significant societal costs lie just over the horizon.

Given the large numbers of candidates for treatment and the current cost of care, significant societal costs lie just over the horizon.

Yet there is a simple intervention that costs nothing and would prevent many persons from progressing to serious liver disease – simply avoiding alcohol. We have known for some time that alcohol is the most significant synergistic factor for developing cirrhosis in those with HCV infection. Risk is increased even in moderate drinkers. We also know that many patients either never receive or never hear the message about this risk from alcohol. What we didn't know until recently was how best to reach and educate HCV-infected persons in Arizona, and how much of a difference such education might make. Now we know.

continued on page 8

Prevention bulletin

Arizona Department of Health Services
Public Information Office
150 North 18th Avenue
Phoenix, AZ 85007
602.364.1201

Janet Napolitano, Governor
Catherine R. Eden, Ph.D., Director ADHS
Rose Conner, Assistant Director, Public Health Services

Editorial Board
Bob England, M.D., M.P.H., State Epidemiologist
Victorio Vaz, D.V.M., Ph.D.
Tim Flood, M.D.
Kathy Fredrickson, M.P.H.
Will Humble, M.P.H.
Karen Lewis, M.D.
Ken Komatsu, M.P.H.
Cheryl McRill, M.D.
Wesley Press, M.S.
Lisa Shumaker, M.A.
Emma N. Viera, M.P.H.

Managing Editor: Courtney Casillas
e-mail: ccasill@hs.state.az.us
Contributors: Bob England, Tim Flood, Craig Levy
Lisa Shumaker, Emma N. Viera

This publication is supported by the Preventive Health and Health Services Block Grant from the Centers for Disease Control and Prevention (CDC).
Its contents do not necessarily represent the views of the CDC.
If you need this publication in alternative format, please contact the ADHS Public Information Office at 602.364.1201 or 1.800.367.8939 (State TDD/TTY Relay).

❍ Change of Address/Name
❍ Delete my name from your mailing list
❍ I received more than one copy

Please include your mailing label with all requests for changes. Fax changes to 602.542.1265

PRSRT STD
US Postage
PAID
Phoenix, AZ
Permit No. 957

Hepatitis C *continued from page 7*

Programs elsewhere have demonstrated efficient mechanisms for contacting and educating persons reported with HCV infection. Despite this, many have been skeptical of the effect such education might have on alcohol consumption. Data from one follow-up study elsewhere, of persons provided only brief public health education, showed that the effect was much more significant and prolonged than anticipated. An astounding 77% had decreased their alcohol consumption when interviewed an average of more than a year later, and fully half had stopped drinking altogether. Apparently, hearing that one is at special, personal risk makes a real difference.

We are using our own and others' experiences to develop a more efficient HCV program. Basically, we're trimming down the data we're collecting, trimming down the time we can spend with particular individuals, and focusing on talking to as many as possible with the most important messages. We believe we can greatly increase the number of persons we reach and educate, most specifically regarding the risk posed by alcohol.

We've hired a new program coordinator and three new health educators so far. Each of these educators will be contacting persons reported with hepatitis C infection to assure their understanding of the risk posed by alcohol, as well as the need for hepatitis A and B vaccines if they've never had the diseases. We may add a few other basic messages. In the meantime, we'll be working with provider groups and institutions to facilitate ways that they can educate their own patients. In this way, you'll still be the primary source of information to your patients and we'll be the safety net for the most important messages – catching those who slipped through the cracks or didn't hear your education the first time around.

We've done some quick calculations and we think that once this activity is fully functioning, if we get results seen elsewhere, we can prevent up to 300 cases of future cirrhosis, make an enormous difference in the lives of each of those persons, prevent tens of millions of dollars in health care costs, and result in thousands of years of life extended with each year of the program. Our program budget is $350,000 per year. Not a bad investment.

We're only beginning (just in time for hepatitis C awareness month in November). Those of you who are involved in hepatitis C screening and treatment will no doubt hear more from us in the future. For more information, contact Judy Norton, Hepatitis C Program Manager, at 602.364.4698.

Bob England, M.D., is the State Epidemiologist and can be reached at 602.364.3582 or benglan@hs.state.az.us.